

MANUFACTURING EXTENSION PARTNERSHIP

Success Stories from the Field

Bollman Hat Company

Mid-Pennsylvania Manufacturing Extension Partnership

Lean Practices Trim Inventory At The Bollman Hat Company

Client Profile:

The Bollman Hat Company, established in 1868, manufactures a complete line of headwear, ladies' and men's wool felt hats, fur felt hats, straw hats, and cloth headwear. The main manufacturing facility is located in Adamstown, Pennsylvania. Bollman also maintains a manufacturing facility in San Angelo, Texas, and a 132,000 square foot distribution facility in Denver, Pennsylvania, and employs less than 500 people.

Situation:

Several forces converged on The Bollman Hat Company (Bollman) in 2000, the most significant of which was a tremendous increase in competition from low-cost Far East producers. The company also felt the squeeze of overcrowding at the distribution center, a critical situation that required either new construction or changes in target inventory levels. An inventory conducted over all product lines in three primary divisions revealed 74,198 pieces of excess stock. Nearly 25 percent of the stock represented slow-moving or out-of-season products. A 'pre-season' production order from one division manager for 11 months of inventory added to the two-plus months of existing inventory in the Distribution Center brought the issue to a head. For help resolving its issues, the company turned to the Mid-Pennsylvania Manufacturing Extension Partnership (MPMEP), a NIST MEP network affiliate comprised of two Pennsylvania Industrial Resource Centers (MANTEC and IMC).

Solution:

MANTEC worked with outside consultants and empowered employee teams to help Bollman overcome its inventory issues. The team spent several months identifying issues and their root causes and finding ways for lean manufacturing concepts to apply to Bollman's situation.

MANTEC created the Bailey Inventory Replenishment Team (BIRT) in May 2001 to study a specific product line (Bailey) and its impact on the Distribution Center. Other Logical Improvement Teams (LITs) studied order processing, work flow, and space issues. Thirty-eight employees received training in Lean Principles through MANTEC. Another six employees attended a similar course in Change Management. Most of the changes took place in the Ladies Millinery department, which experienced significant impacts as a result of the project. The biggest success may be that employees who were once skeptical now accept and practice lean thinking in the way they approach their job everyday. The

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Bollman Hat Company now focuses on lean practices as part of daily operations.

Results:

Tracked inventory, turns, and cycle times and made the information readily available to decision-makers.

Created an integrated order system that tracks optimal levels of inventory.

Introduced cell manufacturing in the Ladies Millinery department.

Reduced Ladies Millinery batch size from 20 dozen to 5 dozen.

Reduced Ladies Millinery floor space by two thirds.

Reduced manufacturing cycle time in all manufacturing divisions, ranging from 6 percent to 23 percent.

Increased demand by 18 percent while maintaining 39 percent less inventory on the floor.

Saved nearly \$100,000 in costs on one product line.

Testimonial:

"As we talked about changes in the department, I was skeptical whether the lean principles were valid and if they could be successfully applied in the department. MANTEC's Lean 101 seminar was an eye-opener for me personally. I believe there are basically three types of people: those who watch things happen, those who make things happen, and those who wonder what happened. We want to be a company that makes things happen."

Jeff Kepple, New Product/Process Development Manager